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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTENTION: HONORABLE  
Commissioner for Patents

P.O. Box 1450

In re the Patent of: **HIGUCHI, Takahiro, et al.**

P.T.O. Confirmation No.: 9539

Patent No. **7,466,893**

Issued: **December 16, 2008**

FOR: **CURABLE RESIN COMPOSITION FOR LIGHT GUIDE FORMATION, CURABLE DRY FILM FOR LIGHT GUIDE FORMATION, CURED RESIN AND LIGHT GUIDE**

**REQUEST FOR CERTIFICATE OF CORRECTION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Mail Stop DAC**  
January 21, 2010


Sir:

The undersigned requests that a Certificate of Correction be issued for the above-identified patent as indicated on the attached Form PTO-1050.

This request is being made in order to insert item (30) in the title page. The Foreign Application Priority Data is omitted, and should read as --**JAPAN 2004-49825 February 25, 2004**--. Copies of the Letters Patent No. 7,466,893 title page, Official Filing Receipt first page, Declaration and Application Transmittal first page filed August 17, 2006 are enclosed which indicate the correct information. It is respectfully submitted that no new matter has been added.

Since this error is a Patent and Trademark Office printing error, it is respectfully submitted that no fee is required.

Respectfully submitted,  
KRATZ, QUINTOS & HANSON, LLP

  
Donald W. Hanson  
Attorney for Applicants  
Reg. No. 27,133

DWH/ses

Atty. Docket No. **060578**  
Suite 400  
1420 K Street, N.W.  
Washington, D.C. 20005  
(202) 659-2930

**Certificate**  
**JAN 25 2009**  
**of Correction**



**23850**

PATENT & TRADEMARK OFFICE

Enclosures: PTO-1050, Letters Patent title page, Official Filing Receipt 1<sup>st</sup> page, Declaration and Application Transmittal 1<sup>st</sup> page filed 8/17/06

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO.: 7,466,893  
DATED : December 16, 2008  
INVENTOR(S): HIGUCHI, Takahiro, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page:

Insert item: (30) Foreign Application Priority Data

--JAPAN 2004-49825 February 25, 2004--

MAILING ADDRESS OF SENDER:  
**KRATZ, QUINTOS & HANSON, LLP**  
**1420 K Street, NW, Suite 400**  
**Washington, DC 20005**

Patent No.: 7,466,893

No. of add'l copies  
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⇒ \_\_\_\_\_



US007466893B2

(12) **United States Patent**  
**Higuchi et al.**

(10) **Patent No.:** **US 7,466,893 B2**  
 (45) **Date of Patent:** **Dec. 16, 2008**

(54) **CURABLE RESIN COMPOSITION FOR  
 LIGHT GUIDE FORMATION, CURABLE DRY  
 FILM FOR LIGHT GUIDE FORMATION,  
 CURED RESIN AND LIGHT GUIDE**

(75) **Inventors:** **Takahiro Higuchi, Hiratsuka (JP);  
 Genji Imal, Hiratsuka (JP)**

(73) **Assignee:** **Kansai Paint Co., Ltd., Hyogo (JP)**

(\*) **Notice:** **Subject to any disclaimer, the term of this  
 patent is extended or adjusted under 35  
 U.S.C. 154(b) by 308 days.**

(21) **Appl. No.:** **10/589,723**

(22) **PCT Filed:** **Feb. 24, 2005**

(86) **PCT No.:** **PCT/JP2005/003026**

§ 371 (c)(1),  
 (2), (4) **Date:** **Aug. 17, 2006**

(87) **PCT Pub. No.:** **WO2005/081024**

**PCT Pub. Date:** **Sep. 1, 2005**

(65) **Prior Publication Data**

**US 2008/0226245 A1 Sep. 18, 2008**

(51) **Int. Cl.**  
**G02B 6/00 (2006.01)**

(52) **U.S. Cl.** ..... **385/143; 385/145**

(58) **Field of Classification Search** ..... **None**  
**See application file for complete search history.**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

**2005/0171318 A1\* 8/2005 Okuhira et al. .... 528/34**

# FOREIGN PATENT DOCUMENTS

JP	9-124793	5/1997
JP	2001-506372	5/2001
JP	2002-275445	9/2002
JP	2002-277664	9/2002
JP	2003-202437	7/2003
JP	2004-10849	1/2004
WO	WO98/26315	6/1998

\* cited by examiner

*Primary Examiner*—Sung H Pak

(74) *Attorney, Agent, or Firm*—Kratz, Quintos & Hanson,  
 LLP

## (57) ABSTRACT

Disclosed is an optical waveguide-forming curable resin composition and optical waveguide-forming curable dry film which are capable of forming cured resin articles that have high heat resistance, excellent mechanical strength and high transparency, and possess properties required for forming optical waveguides, such as low thermal expansion, low transmission loss, etc.

The present invention provides a curable resin composition for forming an optical waveguide, the composition comprising a hydrolyzable silyl-containing silane-modified epoxy resin (A) having an average of at least one hydrolyzable silyl group and an average of at least one epoxy group per molecule; and a resin (B) having, per molecule, an average of at least one functional group that is reactive with an epoxy group; and an optical waveguide-forming curable dry film formed using the resin composition.

**14 Claims, No Drawings**

PLEASE INSERT ITEM (30):

FOREIGN APPLICATION PRIORITY DATA

-- JAPAN 2004-49825 FEBRUARY 25, 2004 --



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY DOCKET NO	TOT CLAIMS	IND CLAIMS
10/589,723	08/17/2006	2874	900	060578	14	2

CONFIRMATION NO. 9539

CORRECTED FILING RECEIPT

23850  
KRATZ, QUINTOS & HANSON, LLP  
1420 K Street, N.W.  
Suite 400  
WASHINGTON, DC 20005



Date Mailed: 08/13/2008

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

**Applicant(s)**

Takahiro Higuchi, Kanagawa, JAPAN;  
Genji Imai, Kanagawa, JAPAN;

**Assignment For Published Patent Application**

KANSAI PAINT CO., LTD., HYOGO, JAPAN

**Power of Attorney:** The patent practitioners associated with Customer Number 23850

**Domestic Priority data as claimed by applicant**

This application is a 371 of PCT/JP2005/003026 02/24/2005

**Foreign Applications**

JAPAN 2004-049825 02/25/2004

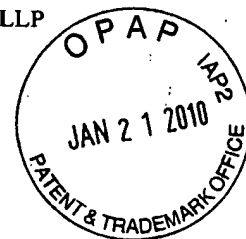
**If Required, Foreign Filing License Granted:** 06/06/2008

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 10/589,723**

**Projected Publication Date:** 09/18/2008

**Non-Publication Request:** No

**Early Publication Request:** No



# DECLARATION FOR U.S. PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

CURABLE RESIN COMPOSITION FOR LIGHT GUIDE FORMATION, CURABLE DRY FILM FOR LIGHT  
GUIDE FORMATION, CURED RESIN AND LIGHT GUIDE

the specification of which is attached hereto unless the following is checked

☒ was filed on February 24, 2005 as United States Application Number or PCT International

Application Number PCT/JP2005/003026 and was amended on October 21, 2005 (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment referred above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 (a) – (d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application for which priority is claimed.

## Priority Claimed

(List prior foreign applications. See note A)

2004-49825 Japan 25/02/2004  
 (Number) (Country) (Day/Month/Year Filed)

☒ Yes ☐ No

(Number) (Country) (Day/Month/Year Filed)

☐ Yes ☐ No

(Number) (Country) (Day/Month/Year Filed)

☐ Yes ☐ No

(Number) (Country) (Day/Month/Year Filed)

☐ Yes ☐ No

(See note B)

☐ See attached list for additional prior foreign applications

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

## Status

(List prior U.S. Applications)

(Application Serial No.) (Filing Date)

☐ Patented ☐ Pending ☐ Abandoned

(Application Serial No.) (Filing Date)

☐ Patented ☐ Pending ☐ Abandoned

(Application Serial No.) (Filing Date)

☐ Patented ☐ Pending ☐ Abandoned

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

23850

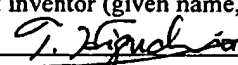
PATENT TRADEMARK OFFICE

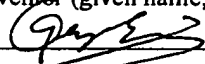
Please direct all communications to the following address:

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PATENT TRADEMARK OFFICE

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18 of the United States Code, ' 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

(See note C) Full name of sole or first inventor (given name, family name) HIGUCHI Takahiro  
Inventor's signature  Date July 14, 2006  
Residence Hiratsuka-shi, Kanagawa 2548562, Japan Citizenship Japan  
Post Office Address c/o KANSAI PAINT CO., LTD., 17-1, Higashiyawata 4-chome, Hiratsuka-shi,  
Kanagawa 2548562, Japan

Full name of second inventor (given name, family name) IMAI Genji  
Inventor's signature  Date July 14, 2006  
Residence Hiratsuka-shi, Kanagawa 2548562, Japan Citizenship Japan  
Post Office Address c/o KANSAI PAINT CO., LTD., 17-1, Higashiyawata 4-chome, Hiratsuka-shi,  
Kanagawa 2548562, Japan

Full name of third inventor (given name, family name) \_\_\_\_\_  
Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
Post Office Address \_\_\_\_\_

Full name of fourth inventor (given name, family name) \_\_\_\_\_  
Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
Post Office Address \_\_\_\_\_

Full name of fifth inventor (given name, family name) \_\_\_\_\_  
Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
Post Office Address \_\_\_\_\_

U.S. DEPARTMENT OF COMMERCE, PATENT AND TRADEMARK OFFICE		DATE: August 17, 2006
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		U.S. PUBL. NO. (if known) <b>107589723</b>
INTERNATIONAL APPLICATION NO.: <b>PCT/JP05/03026</b>	INTERNATIONAL FILING DATE: <b>February 24, 2005</b>	PRIORITY DATE CLAIMED: <b>February 25, 2004</b>
TITLE OF INVENTION: <b>CURABLE RESIN COMPOSITION FOR LIGHT GUIDE FORMATION, CURABLE DRY FILM FOR LIGHT GUIDE FORMATION, CURED RESIN AND LIGHT GUIDE</b>		
APPLICANT(S) FOR DO/EO/US: <b>Takahiro HIGUCHI and Genji IMAI</b>		
Applicant hereby submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li>3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 USC 371(f)) at any time rather than delay examination until the expiration of the time limit set in 35 USC 371(b) and PCT Articles 22 and 39(1).</li> <li>4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.</li> <li>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)): <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau).</li> <li>b. <input checked="" type="checkbox"/> has been transmitted by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US)</li> </ol> </li> <li>6. <input checked="" type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)).</li> <li>7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).</li> <li>b. <input type="checkbox"/> have been transmitted by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input checked="" type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li>8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li>10. <input checked="" type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). (3 Sheets.)</li> </ol>		
<b>ITEMS 11. TO 16. BELOW CONCERN OTHER DOCUMENT(S) OR INFORMATION INCLUDED:</b>		
<ol style="list-style-type: none"> <li>11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98 together with PTO-1449, 5 references and International Search Report.</li> <li>12. <input checked="" type="checkbox"/> a. An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.  <input checked="" type="checkbox"/> b. ASSIGNEE(s) NAME(s) AND ADDRESS <u>KANSAI PAINT CO., LTD., Amagasaki-shi, Japan</u>  Please publish the assignee data with the application.</li> <li>13. <input checked="" type="checkbox"/> A <b>FIRST</b> preliminary amendment.  <input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment</li> <li>14. <input type="checkbox"/> A substitute specification.</li> <li>15. <input type="checkbox"/> A change of power of attorney and/or address letter.</li> <li>16. <input type="checkbox"/> Other items or information:</li> </ol>		